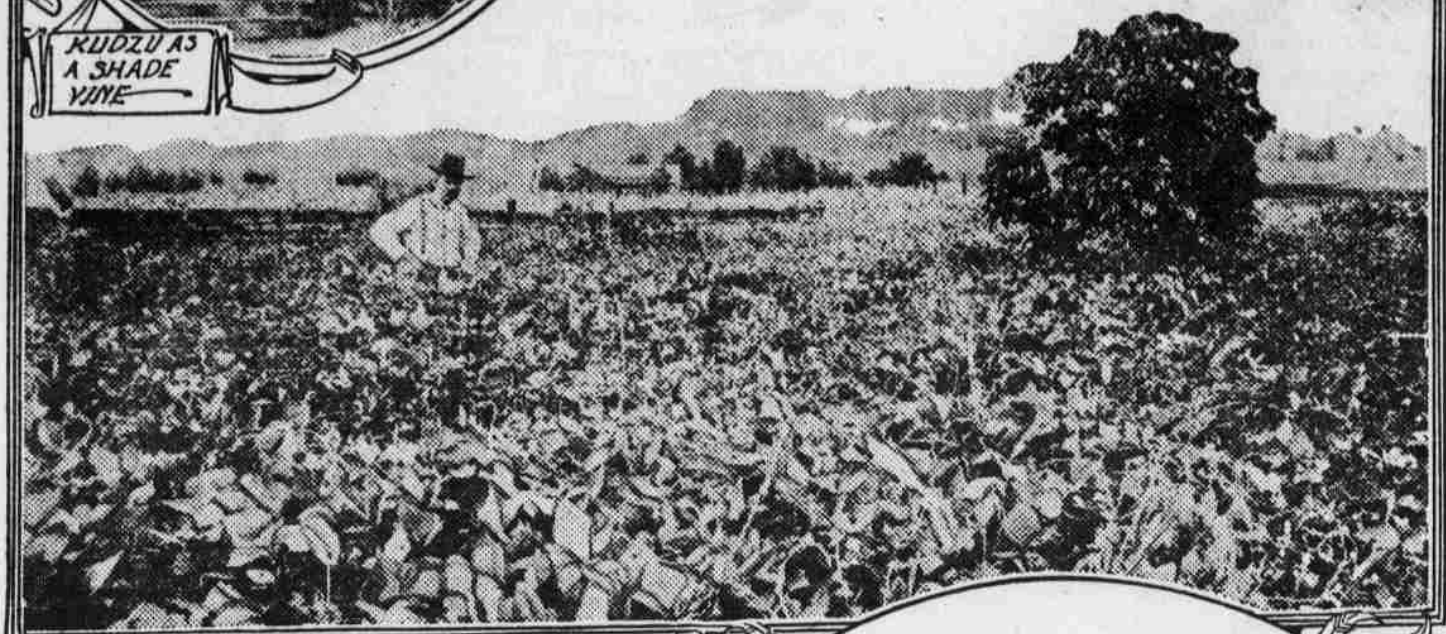


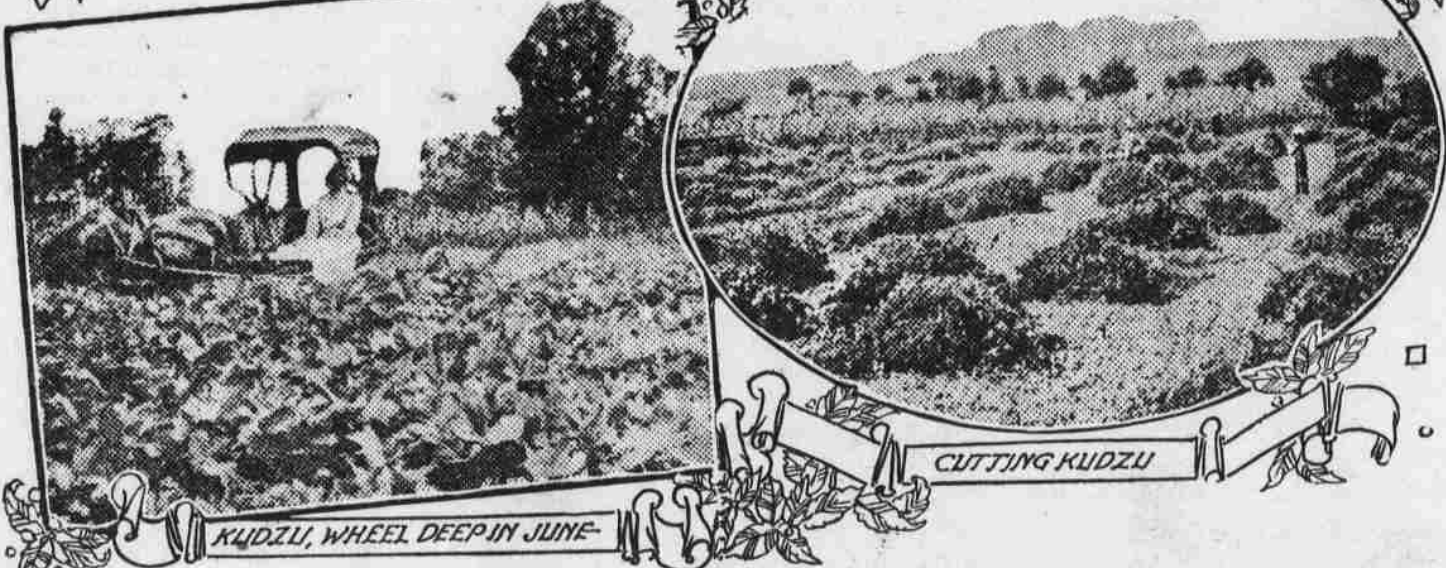


KUDZU: New Forage Plant

By Robert H. Moulton.



FIRST FIELD GROWN IN THE UNITED STATES



KUDZU, WHEEL DEEP IN JUNE

AMONG the many scientific discoveries brought about by the war is the fact that in kudzu, a leguminous plant, this country possesses one of the hardest and most valuable forage plants known. Indeed, this remarkable vine seems destined to become one of the leading sources of wealth in certain sections of the United States. Especially is this true of the southern states, where the slow development of agriculture has been due in large measure to the lack of good nutritious pastures and of roughage that lasts throughout the entire year.

While kudzu is by no means a new plant, it was only a year ago that any extensive experiments were made with it; the number of farms on which it was grown was insignificant. In fact, it appears not to have been studiously cultivated anywhere until a Florida man made the accidental discovery that his live stock seemed to prefer it to any other kind of forage plant and that they waxed fat upon it. As this was at a time when the high cost of feed forced many farmers to reduce the daily allowance of their animals, he hastened to plant a number of acres to kudzu, with the most satisfactory results.

Builds Up Poor Land.

It was not only as a feed for his farm animals that he discovered virtue in the plant, however. He found that, by reason of its power of extracting nitrogen from the air through the medium of the bacteria on its roots and adding this essential element to the soil, it quickly built up poor and worn-out land, making it fertile and productive. In this respect he believes it even superior to clover, alfalfa and other leguminous plants. Last season he made the best corn ever grown in Florida, averaging 50 bushels to the acre, on land that the season before had been planted to kudzu, and this without any fertilizer whatever. What made the experiment more interesting was the fact that this land previously never produced a good crop of any sort, being considered practically worthless.

All this came about as the result of a few vines which had been planted on the lawn of his home for ornamental purposes. Kudzu makes a beautiful growth, the leaves being of a dark green, and is one of the fastest growers known, producing a dense shade in a very short time. On the lawn of this Florida man it was grown to cover a summer house.

So rapid was its growth, in fact, that after the second year he grubbed it out as something of a nuisance, because the vines trailed all over the lawn, making it impossible to keep the growth confined to the summer house.

The three roots so dug up were thrown on a trash pile in one corner of the yard, with the idea that, since it wanted to run on the ground, it would grow and conceal the trash pile.

It not only did this the first season, but continued to reach out until it covered all the adjoining fences, finally reaching the barn lot, where the family horse was kept. According to its owner, the horse literally wore his mane off reaching under the bars of the fence for the vine, while the neighbors' cattle and hogs continually broke through the fence to get it.

Becoming alarmed, lest the plant might be poisonous, the owner of the horse sent some of it to the department of agriculture for an opinion. On learning from this source that kudzu had no poisonous properties that were known of, he began investigating and experimenting, with the result that it was found by repeated analyses to contain an average of 17 per cent of protein, in one instance the percentage being 19.82. The average percentage of protein in alfalfa is 14.3 per cent. On a measured space 30 feet square he cut during one season at the rate of 11 tons cured hay at four cuttings. This, however, was an exceptionally favorable season, there being no late frosts, and the first cutting was made May 1. The second cutting was made June 11, the third the last of July, and the fourth early in September.

While it is not claimed that kudzu will make four cuttings every season, nor yield 11 tons per acre at a cutting, it is believed that a safe estimate is from two to three cuttings, with a yield of from four to six tons per acre, anywhere that the plant may be grown under favorable circumstances, and experiments have proved that it is perfectly hardy all over the United States, enduring the winters as far north as Nova Scotia.

Needed in the South.

What is needed in the South especially, is a forage that stock can live and keep fat on the year around. There are many valuable cultivated crops that make immense yields, but their period of mature life is short, making frequent plantings necessary in order to have a complete succession. The velvet bean, for instance, is an all-season crop, but it is not ready to feed until November. The cowpea, soy bean, and the various sorghums and millets are good forage crops, but all must be planted in succession and cultivated for best results. Furthermore, in the case of crops that must be harvested before feeding, the farmer has only a few days in which to get it in its prime condition, something that is impossible if rains are frequent.

Again, all the legumes, with the exception of kudzu, are open to objection through dropping their leaves and shattering while curing and harvesting. And a heavy rain on them, or

any of the grasses, hays or fodders during the period of curing means serious injury if not complete ruin.

Kudzu's Hardy Qualities.

Kudzu, however, possesses none of these disadvantages. One planting lasts for many years and it may be cut or pastured at any time during the season, in north Florida, from about the middle of April until frost comes. And where there is a growth left in the ground, stock will feed on it all winter. Stock, in fact, have been known to eat the dead leaves and vines which have lain out and weathered until March, when it was hauled in for bedding, in preference to the best hay that could be bought. The vines do not bloom or bear seed, and its roots penetrate the soil deeply, for which reason they remain green and full of life during the entire growing season. Accordingly, the hay can be cut any time when weather conditions are suitable for curing hay, as kudzu is not injured by waiting for good weather as other hay crops are. In fact, even if kudzu is thoroughly soaked during the curing period, it will afterwards show little effect of wetting.

Most people might think that, because kudzu is a vine, it must be very difficult to cut and handle it as a hay crop. On the contrary, experience has shown that it is no more trouble to cut or handle than a heavy crop of red clover, Mexican clover, crabgrass, or any other hay that makes a matted growth, while it is much easier to handle than either cowpea or velvet bean hay. Unlike the cowpea and velvet bean, kudzu is anchored to the ground every few inches, and so the vines cannot drag ahead of the mower blade, as in the case of peas and beans.

Kudzu should be propagated by means of the rooted plants, for when these plants are removed to new fields they carry with them the bacteria, on the tubercles of their roots, which are necessary to inoculate the new soil in order to secure the best results. When the plant becomes well established it needs no further cultivation, being able to control native weeds and grasses without assistance. The roots live for many years and do not require replanting after the first season.

The proper time for planting kudzu is two or three weeks in advance of corn planting, or a little earlier if one can get the ground ready. A full crop of corn may be grown on the same land during the first year by simply dropping the grains between the plants. Neither crop will interfere with the other and both need about the same attention. The ground, however, should be left smooth and level at the last cultivation to permit easy rooting of the vines or runners and subsequent mowing for hay. After the first year the kudzu will not need any cultivation at all, as the vines will root at the joints.

IN THE REALM OF DISCOVERY

Many Things to Which the Genius of Man Has Not Yet Remotely Penetrated.

By far the greatest boon to mankind would be some device by which a man could be made to see without eyes. When we think of the wonders of the microscope, the telescope and the spectroscope, it does not seem quite hopeless that a method will some day be discovered of conveying vision to the brain without the aid of the natural eye, but as yet this great human benefactor has not come forward.

Of course, there is still unsolved the old riddle of perpetual motion, which thousands of cranks have spent their lives upon in the past. Scientists tell us that there is not perpetual motion known even to astronomy, so that it is unlikely that it will ever be discovered on earth. The world, they say, is slowly checking its speed round the sun, and its diurnal revolution, but so slowly as to be imperceptible within historic times, and the sun they say is a dying fire which will be extinct in a few hundred billion years. Yet the discovery of radium, with its apparently inexhaustible energy, rather shook the scorn with which the ideal of perpetual motion used to be regarded, and if a machine could be constructed to go for twenty years, on its own as it were, it would be "perpetual" enough for all ordinary purposes! —Tit-Bits.

Sumac and Shoes.

Scarcity of tanning material contributes to the high cost of shoes. Since the supply of oak and hemlock bark is no longer sufficient we must annually send \$30,000,000 to foreign countries for tanning material. One material is Sicilian sumac, worth from \$2.50 to \$4 a pound. Tons of it go to waste here. After a frost city people admire it because of its flame-colored leaves. Little boys love it because its hollow branches make fine pop and squirt guns. But the farmer hates it because it grows everywhere. He is forever cutting it down. Yet this "nuisance" contains 30 per cent tannin. It might be a good move to teach the farmers to turn this bane into a blessing. Then we would save part of that \$30,000,000 tanning bill.—Wall Street Journal.

Unbelievable Red Tape.

A British officer in charge of an exposed and important position ran short of ammunition during an unexpected and hotly pressed attack.

Tearing a leaf from his pocketbook he hastily wrote on it the following message: "In great danger. For heaven's sake send us some ammunition," and dispatched it by an orderly at full speed.

After considerable delay the messenger returned and handed him an official document. On opening it he read the following extraordinary effusion: "All communications to this department must be written on foolscap paper with a two-inch margin."

Results Are God's.

If it were best for us to know how things were to turn out, God would have added foreknowledge to our endowments. But instead, he leaves us to go bravely on, making the most of the present moment, living up to the light we have, using our best judgment and putting forth our most earnest effort. And by keeping the outcome to himself, he shows us that our only course is to do our best. The results are his.—Girl's Companion.

CINCINNATI MARKET.

Hay and Grain.

Corn—No. 2 white \$1.85@1.87, No. 3 white \$1.83@1.85, No. 2 yellow \$1.85@1.87, No. 3 yellow \$1.83@1.85, No. 2 mixed \$1.84@1.86, No. 3 mixed \$1.82@1.84, white ear \$1.80@1.87, yellow ear \$1.80@1.87, mixed ear \$1.80@1.87.

Sound Hay—Timothy per ton \$36@41.75, and clover mixed 35@40.50, clover \$23@32.

Oats—No. 2 white 72½c, standard 72c, No. 3 white 71½c, No. 2 mixed 70½@71½c, No. 3 mixed 69@70c.

Butter, Eggs and Poultry.

Butter—Whole milk creamery extras 55c, centralized creamery extras 53½c, first 50c.

Eggs—Prime firsts 39c, firsts 38c, ordinary firsts 36c.

Live Poultry—Broilers, under 2 lbs, 50c; fowls, 5 lbs and over, 28c; do, under 5 lbs, 28c; do roosters, 15c.

Live Stock.

Cattle—Shippers \$12@14, butcher steers, extra \$11.50@12.50, heifers, extra \$13@13.50, good, to choice \$11@12.50, common to fair \$7@10.50; cows, extra \$10@11, good to choice \$7.50@10, common to fair \$5.50@7.50; can- \$7@11.50.

Calves—Extra \$17@17.50, fair to good \$15@17, common and large \$7@14.

Hogs—Selected heavy shippers \$20.75, good to choice packers and butchers \$20.75, medium \$20@20.75, stags \$10@13.75, common to choice heavy fat sows \$10@13.75, light shippers \$19@10.75, pigs (110 lbs and less) \$14@18.25.

COULDN'T SLEEP

Was Miserable and Losing Weight Suffering From Kidney Complaint. Doan's Removed the Trouble.

"I was about down and out from kidney trouble," says Harry Griffith, of 228 N. Darlington St., Westchester, Pa. "The kidney secretions burned like scalding water. Sometimes there would be a complete stoppage and, oh! what pain I suffered! My feet became swollen and I had a time of it getting on my shoes. "My back hurt right over my kidneys. Nights I did nothing but toss about. It was just as though a knife were thrust into my back. I couldn't bend over without terrible pain and I would fall to my knees and crawl along to get hold of something to help myself up. Blinding dizzy spells came on and terrible headaches added to my misery. "I was rapidly losing weight and knew something would have to be done. I began taking Doan's Kidney Pills and was more than surprised. The troubles were soon leaving me and six boxes of Doan's Kidney Pills cured me entirely. To this day I have been free from kidney complaint." Sworn to before me.

A. J. TOWNSEND, Notary Public.

Get Doan's at Any Store, 60c a Box
DOAN'S KIDNEY PILLS
FOSTER-MILBURN CO., BUFFALO, N. Y.

BELCHING Caused by Acid-Stomach

Let EATONIC, the wonderful modern stomach remedy, give you quick relief from disgusting belching, food-roping, indigestion, bloated, gassy stomach, dyspepsia, heartburn and other stomach miseries. They are all caused by Acid-Stomach from which about nine people out of ten suffer in one way or another. One writes as follows: "Before I used EATONIC, I could not eat a bite without belching it right up, sour and bitter. I have not had a bit of trouble since the first tablet."

Millions are victims of Acid-Stomach without knowing it. They are weak and ailing, have poor digestion, bodies improperly nourished although they may eat heartily. Grave disorders are likely to follow if an acid-stomach is neglected. Cirrhosis of the liver, intestinal congestion, gastritis, catarrh of the stomach—these are only a few of the many ailments often caused by Acid-Stomach.

A sufferer from Catarrh of the Stomach of 11 years' standing writes: "I had catarrh of the stomach for 11 long years and I never found anything to do me any good—just temporary relief—until I used EATONIC. It is a wonderful remedy and I do not want to be without it."

If you are not feeling quite right—lack energy and enthusiasm and don't know just where to locate the trouble—try EATONIC and see how much better you will feel in every way.

At all drug stores—a big box for 50c and your money back if you are not satisfied.

EATONIC
(FOR YOUR ACID-STOMACH)

A very popular couple—two dollars.

Buy a Farm Now.

Because land is cheaper than it will ever be again. The U. S. Railroad Administration is prepared to furnish free information to homeseekers regarding farming opportunities. We have nothing to sell; no money to lend; only information to give. Write me the state you want to learn about. J. L. Edwards, Manager, Agricultural Section, U. S. Railroad Administration, Room 79, Washington, D.C.—adv.

Compliments cost nothing, yet many pay dear for them.—German proverb.

"FAKE" ASPIRIN WAS TALCUM

Always Ask for Genuine "Bayer Tablets of Aspirin"



If you see the "Bayer Cross" on the package you are sure you are not getting talcum powder. Millions of fraudulent Aspirin Tablets were recently sold throughout the country. Aspirin is the trade mark of Bayer Manufacture of Mononitroaceticacid of Salicylicacid.

Don't get too swift; you can walk farther in a day than you can run.

The Cuticura Toilet Trio Having cleared your skin keep it clear by making Cuticura your every-day toilet preparations. The soap to cleanse and purify, the Ointment to soothe and heal, the Talcum to powder and perfume. No toilet table is complete without them. 25c everywhere.—Adv.

His Experience.

"A cart horse experiences the vicissitudes of life, doesn't he?" "Sure; his life is just a succession of wheel and whorl."

When Your Eyes Need Care Try Murine Eye Remedy

No stinging—Just Eye Comfort. 60 cents a box. Write for Free Eye Book. MURINE EYE REMEDY CO., CHICAGO